AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) A system comprising:

a chamber configured to house a substrate for processing;

an energy source coupled to the chamber;

a system controller configured to control the introduction of at least one metal precursor gas to a focused ion beam having a gallium source and to control the introduction of the focused ion beam from the energy source; and

a memory coupled to the controller comprising a computer-readable medium having a computer-readable program embodied therein for directing operation of the system, the computer-readable program comprising:

instructions for controlling the energy source and for introducing the metal precursor gas into a focused ion beam which is introduced into the chamber over the substrate in which the metal from the focused ion beam forms at least one metal layer over the substrate; and

instructions for controlling a coherent electromagnetic radiation source applied to a top surface of the at least one layer to heat the at least one layer sufficiently to remove gallium from the layer.

2. (Previously Presented) The system of claim 1, wherein the program further comprises instructions for controlling the introduction of a metal precursor gas of one of cobalt, metal carbonyl, molybdenum, platinum, and tungsten.

3. (Previously Presented) The system of claim 2, wherein the controller is configured to control and the program further comprises instructions to control a vacuum coupled to the chamber to cause introducing one of cobalt, metal carbonyl, molybdenum, platinum, and tungsten into the focused ion beam in a controlled ratio at a chamber pressure in the range of 10^{-5} to 10^{-7} torr.

4. (Original) The system of claim 1, wherein the focused ion beam heats a discrete area on the layer.

5. (Original) The system of claim 1, further comprising a lens coupled to the coherent electromagnetic radiation source to focus the coherent electromagnetic radiation source to a spot size on the at least one layer.

6. (Original) The system of claim 5, wherein said lens comprises a 5x lens of numerical aperture approximately 0.15 to focus a spot size of the coherent electromagnetic radiation source in the range of 8 microns to 10 microns in diameter.

7. (Original) The system of claim 5, wherein the at least one metal layer formed over the substrate comprises tungsten and the spot size is approximately 10 micro-meters in width.

8. (Previously Presented) The system of claim 1, wherein the program further comprises instructions for controlling the energy source and for introducing the metal precursor gas into a focused ion beam to form at least one metal layer over the substrate that comprises at least one metal layer line having a thickness in the range of 0.1 microns to 1 micron.

9. (Previously Presented) The system of claim 1, wherein the controller is configured to control and the program further comprises instructions to control one of a vacuum, a non-reacting gas source, and a reducing atmosphere source coupled to the chamber to cause one of a vacuum, a non-reacting gas, and a reducing atmosphere in the chamber during the heat.

10. (Canceled)

11. (Previously Presented) The system of claim 1, wherein the instructions for controlling the introduction of at least one metals comprises instructions for controlling introducing at least two of cobalt, metal carbonyl, molybdenum, platinum, and tungsten in a controllable ratio.

12. (Previously Presented) The system of claim 1, further comprising a plurality of inlets and program instructions to introduce a plurality of metal precursor gasses,

wherein each of the plurality of metal precursor gasses is introduced via a separate inlet and in a controllable ratio.

13. (Currently Amended) The system of claim 1, wherein the instructions for controlling a coherent electromagnetic radiation source include instructions to heat the layer sufficiently to ~~re-~~crystallize a metal component of the at least one metal formed in the at least one layer.

14. (Previously Presented) The system of claim 13, wherein the instructions for controlling a coherent electromagnetic radiation source include instructions for controlling one of a laser, a continuous wave laser, a pulsed laser, and an argon laser to heat the at least one layer.

15. (Currently Amended) A system comprising:

a chamber configured to house a substrate for processing;

an energy source coupled to the chamber;

a system controller configured to control the introduction of at least one metal precursor gas to a focused ion beam and to control the introduction of the focused ion beam from the energy source; and

a memory coupled to the controller comprising a computer-readable medium having a computer-readable program embodied therein for directing operation of the system, the computer-readable program comprising:

instructions for controlling the energy source and for introducing the metal precursor gas into a focused ion beam which is introduced into the chamber over the substrate in which the metal from the focused ion beam forms at least one metal layer over the substrate; and

instructions for controlling one of a continuous wave laser, and a pulsed laser applied to a top surface of the at least one layer at an angle of ~~less than 90 degrees~~ between 50 degrees and 60 degrees to heat the at least one layer.

16. (Previously Presented) The system of claim 15, further comprising a lens coupled to the laser to focus the laser to a spot size on the at least one layer that conforms to the width of the at least one layer.

17. (Currently Amended) The system of claim 15, wherein the focused ion beam has a gallium source, and the instructions for controlling the laser include instructions to heat the layer sufficiently to remove gallium from the layer and to ~~re-~~crystallize a metal component of the at least one metal formed in the at least one layer.

18. (Currently Amended) A system comprising:

a chamber configured to house a substrate for processing;

an energy source coupled to the chamber;

a system controller configured to control the introduction of at least one metal precursor gas to a focused ion beam and to control the introduction of the focused ion beam from the energy source;

a memory coupled to the controller comprising a computer-readable medium having a computer-readable program embodied therein for directing operation of the system, the computer-readable program comprising:

instructions for controlling the energy source and for introducing the metal precursor gas into a focused ion beam which is introduced into the chamber over the substrate in which the metal from the focused ion beam forms at least one metal line having a line width over the substrate; and

instructions for controlling a coherent electromagnetic radiation source applied to a top surface of the at least one ~~layer~~ line at an angle of ~~less than 90 degrees~~ between 50 degrees and 60 degrees to heat the at least one ~~layer~~ line; and

a lens coupled to the coherent electromagnetic radiation source to focus the coherent electromagnetic radiation source to a spot size on the at least one ~~layer~~ line that conforms to the line width ~~of the at least one layer~~.

19. (Previously Presented) The system of claim 18, wherein said lens comprises a 5x lens of numerical aperture approximately 0.15 to focus a spot size of the coherent electromagnetic radiation source in the range of 8 microns to 10 microns in diameter, and wherein the at least one metal layer formed over the substrate comprises tungsten and the spot size is approximately 10 micro-meters in width.

20. (Previously Presented) The system of claim 18, wherein the focused ion beam has a gallium source and instructions for controlling a coherent electromagnetic

radiation source include instructions to heat the layer sufficiently to remove gallium from the layer.

21. (Previously Presented) The system of claim 18, wherein the instructions for controlling a coherent electromagnetic radiation source include instructions for controlling one of a continuous wave laser, and a pulsed laser to heat the at least one layer sufficiently to re-crystallize a metal component of the at least one metal formed in the at least one layer.